Bedrock-surface Topography of Hendricks County, Indiana

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IDENTIFICATION_INFORMATION

Citation:

Citation Information:

Originator:

Glenn Grove, IDNR Division of Water, Ground Water Section

Publication Date: 200104

Title: Bedrock-surface Topography of Hendricks County, Indiana (Indiana Department of Natural Resources,

Division of Water, 1:48,000, Line Coverage)

Edition: 1.0

Geospatial Data Presentation Form: Map

Publication Information:

Publication Place: Indianapolis, Indiana, USA

Publisher: Indiana Department of Natural Resources, Division of Water

Other_Citation_Details: This map was compiled from multiple unpublished work maps at 1:24,000 scale: see Data Quality Information section for details about the individual maps that were merged to make the composite map.

Online Linkage:

Larger Work Citation: Ground Water Atlas of Hendricks County, Indiana

Citation Information:

Originator: Indiana Department of Natural Resources, Division of Water

Publication Date: not yet published, in progress

Title: Ground Water Atlas of Hendricks County, Indiana

Publication_Information:

Publication_Place: Indianapolis, Indiana, USA

Publisher: Indiana Department of Natural Resources, Division of Water

Online Linkage:

Description:

Abstract: This file is a digital geospatial line coverage of bedrock-surface topography for Hendricks County, Indiana. The mapping was conducted using the water well record data as well as previously published reports and maps of the region. Primary attribute is the elevation of the bedrock surface.

Purpose: Display and/or analyses requiring bedrock topography contours for Hendricks County, Indiana. The coverage is suitable for use in a Geographic Information Systems.

Supplemental Information:

Time Period of Content:

Time Period Information:

Range_of_Dates/Times: Beginning_Date: 1959 Ending Date: 1999

Currentness Reference: publication date

Status:

Progress: Complete

Maintenance and Update Frequency: None planned

Spatial Domain:

```
Bounding_Coordinates: Bounding_Coordinates:
West_Bounding_Coordinate: -86.6966
East_Bounding_Coordinate: -86.3237
North_Bounding_Coordinate: 39.9256
South_Bounding_Coordinate: 39.5996
Keywords:
Theme:
Theme_Keyword_Thesaurus: None
Theme_Keyword: geology
Theme_Keyword: bedrock-surface
Theme_Keyword: elevation
Place:
Place_Keyword_Thesaurus: None
Place Keyword: Hendricks County, Indiana, USA
```

Access_Constraints: This file is available to anyone, but access may be contingent on written request, specific terms relevant to the agency or person making the request, and/or current freedom of information statutes in the State of Indiana.

Use_Constraints: Acknowledgement of the following agency in products derived from these data: Indiana Department of Natural Resources, Division of Water. This map was compiled by staff of the Indiana Department of Natural Resources, Division of Water over many years using data believed to be accurate. However, a degree of error is inherent in all maps. This product is distributed "as-is" without warranties of any kind, either expressed or implied. The maps are intended for use only at the published scale.

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The information on these media is proprietary to the State of Indiana, Indiana Department of Natural Resources, Division of Water. Any copying, adaptation, or distribution of these data without the express written consent of IDNR-DOW is discouraged.

```
Point of Contact:
  Contact Information:
    Contact Organization Primary:
     Contact Organization: Indiana Department of Natural Resources, Division of Water
     Contact Person: Glenn Grove
    Contact Position: Engineering Geologist
    Contact Address:
     Address Type: Mailing and physical address
     Address: 402 W. Washington Street W264
     City: Indianapolis
     State or Province: Indiana
     Postal Code: 46204
     Country: USA
    Contact Voice Telephone: 317-232-4160
    Contact Facsimile Telephone: 317-233-4579
    Contact Electronic Mail Address: ggrove@dnr.state.in.us
 Native Data Set Environment:
  ArcInfo version 7.1 line coverage format
  Approximate size 2 MB
  Hendr cont7.e00
and
  ArcView 3.2 shapefile
  Approximate size 0.8 MB
  Hendr cont7.shp
```

DATA QUALITY INFORMATION

Attribute Accuracy:

Attribute_Accuracy_Report: The mapping was conducted by hand on mylars over base maps of 1:24,000 quadrangles.

Logical Consistency Report:

Completeness_Report: Every attempt was made to include data from water well records that had complete information on water well records, including complete location, construction, pump test, and lithological information. There were a few areas in the county that had insufficient information due to the particular drillers in the area who chronically under-report information on water well records or because of the pervasive insufficient supply of water. Most water well records for poorly producing wells are missing information.

Positional_Accuracy: The locations of the contours are most often based on a combination of the water well record data and base map surface contours. The locations of actual wells were usually estimated from 7.5 minute topographic maps, and visual siting of wells was not always possible. Many locations were based on location of the street address on the water well record.

Horizontal Positional Accuracy:

Horizontal_Positional_Accuracy_Report: Locations of contour lines that are dependent on located well records might be offset slightly if the log is mislocated. Georeferencing of the maps was conducted after the maps were vectorized from a scanned raster image. A minimum of four reference tic marks were used to register the image, and UTM coordinates were assigned to each tic mark before the coverage was transformed to the map projection. The maps were retraced onto mylar for stability, but any positional changes from the paper maps were retained. There is also some inherent errors in transferring tic marks from paper to mylar to digital form, so additional error is expected in this step.

Vertical Positional Accuracy:

Vertical_Positional_Accuracy_Report: The elevation of each contour is dependent on the field-located surface elevation of the water well records. If the surface location is mislocated, the surface elevation is wrong, or the driller's estimation of depth-to-bedrock is incorrect, then the resulting bedrock elevation will be incorrect, as well. Horizontal positional errors will result in vertical positional errors in an elevation contour map such as this one.

Lineage:

Source Information:

Source Citation:

Citation Information:

Originator: Indiana Department of Natural Resources, Division of Water

Publication_Date: 200104

Title: Bedrock-surface Topography of Hendricks County, Indiana (Indiana Department of Natural Resources, Division of Water, 1:48,000, Line Coverage)

Edition: 1.0

Geospatial Data Presentation Form: map

Publication Information:

Publication_Place: Indianapolis, IN Publisher: State of Indiana, IDNR

Other Citation Details:

Online Linkage:

Larger Work Citation: Ground Water Atlas of Hendricks County, Indiana

Citation Information:

Originator: Indiana Department of Natural Resources, Division of Water

Publication_Date: not yet published; in preparation Title: Ground Water Atlas of Hendricks County, Indiana

Publication Information:

Publication_Place: Indianapolis, IN

Publisher: Indiana Department of Natural Resources

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Online Linkage:
    Source Scale Denominator: 48,000
    Type of Source Media: digital file
    Source Time Period of Content:
     Time Period Information:
      Range of Dates/Times:
        Beginning Date: 1959
        Ending Date: 1999
     Source Currentness Reference: Publication date
    Source Citation Abbreviation: IDNR DOW Hendricks Co. Bedrock surface topography
    Source Contribution: water well records from the IDNR-DOW water well record archives, seismic data, oil and
gas logs, publications
Process Step:
    Process Description: Staff of the IDNR-DOW conducted mapping for this project from 1998 through 1999.
The mapping was typically at a 7.5 minute quadrangle scale of 1:24,000. Data were selected by careful evaluation
of water well records to determine if the water well records were located and if they contained complete and
reasonable information. In other areas, where appropriate, additional data such as seismic shots or oil and gas logs
were used. The mapping was conducted on a mylar sheet (on file at the IDNR-DOW).
Source Used Citation Abbreviation: IDNR-DOW water well records for domestic wells submitted by water-well
drillers from 1956-1999
    Process Date: 1999
    Source Produced Citation Abbreviation:
    Process Contact:
     Contact Information:
       Contact Person Primary:
        Contact Organization: Indiana Department of Natural Resources, Division of Water
        Contact Person: Glenn Grove
       Contact Position: Engineering Geologist
       Contact Address:
     Address Type: Mailing and physical address
     Address: 402 W. Washington Street W264
     City: Indianapolis
     State or Province: Indiana
     Postal Code: 46204
     Country: USA
    Contact Voice Telephone: 317-232-4160
    Contact Facsimile Telephone: 317-233-4579
    Contact Electronic Mail Address: ggrove@dnr.state.in.us
    Hours of Service: 8:15am - 4:15pm
  Process Step:
    Process Description: The mylar was scanned using a wide-bed black-and-white scanner and saved as a raster
image. The raster image was vectorized using a tracer program (ArcScan). The vector data were georeferenced to
UTM Zone 16, NAD27. The arc coverage was attributed with the appropriate elevation value. (Personnel: Sally
Letsinger)
    Source Used Citation Abbreviation: IDNR-DOW water well records for domestic wells submitted by water-
well drillers from 1956-1999
    Process Date: 1999
    Source Produced Citation Abbreviation:
    Process Contact:
     Contact Information:
       Contact Person Primary:
        Contact Organization: Indiana Department of Natural Resources, Division of Water
        Contact Person: Glenn Grove
       Contact Position: Engineering Geologist
       Contact Address:
     Address Type: Mailing and physical address
```

```
Address: 402 W. Washington Street W264
     City: Indianapolis
     State or Province: Indiana
     Postal Code: 46204
     Country: USA
    Contact Voice Telephone: 317-232-4160
    Contact Facsimile Telephone: 317-233-4579
    Contact Electronic Mail Address: ggrove@dnr.state.in.us
    Hours of Service: 8:15am - 4:15pm
Process Step:
    Process Description: After the maps were attributed and georeferenced, each map was digitally edgematched
and joined together using ESRI ArcInfo.
Source Used Citation Abbreviation
    Process Date: 1999
    Source Produced Citation Abbreviation:
    Process Contact:
     Contact Information:
      Contact Person Primary:
        Contact Organization: Indiana Department of Natural Resources, Division of Water
        Contact Person: Glenn Grove
       Contact Position: Engineering Geologist
       Contact Address:
     Address Type: Mailing and physical address
     Address: 402 W. Washington Street W264
     City: Indianapolis
     State or Province: Indiana
     Postal Code: 46204
     Country: USA
    Contact Voice Telephone: 317-232-4160
    Contact Facsimile Telephone: 317-233-4579
    Contact Electronic Mail Address: ggrove@dnr.state.in.us
    Hours of Service: 8:15am - 4:15pm
Process Step:
                 Process Description: The above process steps apply for all work maps.
Source Used Citation Abbreviation
    Process Date: 1999
    Source Produced Citation Abbreviation:
    Process Contact:
     Contact Information:
       Contact Person Primary:
        Contact Organization: Indiana Department of Natural Resources, Division of Water
        Contact Person: Glenn Grove
       Contact Position: Engineering Geologist
       Contact Address:
     Address Type: Mailing and physical address
     Address: 402 W. Washington Street W264
     City: Indianapolis
     State or Province: Indiana
     Postal Code: 46204
     Country: USA
    Contact Voice Telephone: 317-232-4160
    Contact Facsimile Telephone: 317-233-4579
    Contact Electronic Mail Address: ggrove@dnr.state.in.us
    Hours of Service: 8:15am - 4:15pm
```

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Source Information:
    Source Citation:
     Citation Information:
       Originator: Mary Thompson, Indiana Department of Natural Resources, Division of Water
       Publication Date: work completed 1999
       Title: Unpublished work map, Bridgeport Quadrangle Bedrock-surface Topography. 1:24,000
       Geospatial Data Presentation Form: map
       Publication Information:
        Publication Place: Indianapolis, IN
        Publisher: State of Indiana, IDNR
        Other Citation Details: Data plotted by Marv Thompson: 1999
        Online Linkage:
      Larger Work Citation: Ground Water Atlas of Hendricks County, Indiana
        Citation Information:
         Originator: Indiana Department of Natural Resources, Division of Water
         Publication Date: 200104
         Title: Ground Water Atlas of Hendricks County, Indiana
         Publication Information:
           Publication Place: Indianapolis, IN
          Publisher: Indiana Department of Natural Resources
         Online Linkage:
    Source Scale Denominator: 24000
    Type_of_Source Media: mylar
    Source Time Period of Content:
     Time Period Information:
      Range of Dates/Times:
        Beginning Date: 1959
        Ending Date: 1999
     Source Currentness Reference: Publication date
    Source Citation Abbreviation:
IDNR DOW WFWR Bedrock surface topography Bridgeport_Quadrangle_Indiana
    Source Contribution: water well records from the IDNR-DOW water well record archives, seismic data, oil and
gas logs, publications
Lineage:
  Source Information:
    Source Citation:
     Citation Information:
       Originator: Mary Thompson, Indiana Department of Natural Resources, Division of Water
       Publication Date: work completed 1999
       Title: Unpublished work map, Brownsburg Quadrangle Bedrock-surface Topography. 1:24,000
      Edition: 1.0
       Geospatial Data Presentation Form: map
       Publication Information:
        Publication Place: Indianapolis, IN
        Publisher: State of Indiana, IDNR
        Other Citation Details: Data plotted by Marv Thompson: 1999; the map was retraced by Marv Thompson
        for scanning.
        Online Linkage:
      Larger Work Citation: Ground Water Atlas of Hendricks County, Indiana
        Citation Information:
         Originator: Indiana Department of Natural Resources, Division of Water
         Publication Date: 200104
         Title: Ground Water Atlas of Hendricks County, Indiana
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Publication Information:

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Publication Place: Indianapolis, IN
          Publisher: Indiana Department of Natural Resources
         Online Linkage:
    Source Scale Denominator: 24000
    Type of Source Media: mylar
    Source Time Period of Content:
     Time Period Information:
      Range of Dates/Times:
        Beginning Date: 1959
        Ending Date: 1999
     Source Currentness Reference: Publication date
    Source Citation Abbreviation:
IDNR DOW WFWR Bedrock surface topography Brownsburg Quadrangle Indiana
    Source Contribution: water well records from the IDNR-DOW water well record archives, seismic data, oil and
gas logs, publications.
Lineage:
  Source Information:
    Source Citation:
     Citation Information:
       Originator: Marv Thompson, Indiana Department of Natural Resources, Division of Water
       Publication Date: work completed 1999
       Title: Unpublished work map, Clayton Quadrangle Bedrock-surface Topography. 1:24,000
      Edition: 1.0
       Geospatial Data Presentation Form: map
       Publication Information:
        Publication Place: Indianapolis, IN
        Publisher: State of Indiana, IDNR
        Other Citation Details: Data plotted by Mary Thompson: 1999; Mary Thompson retraced the map for
        scanning.
        Online Linkage:
      Larger Work Citation: Ground Water Atlas of Hendricks County, Indiana
        Citation Information:
         Originator: Indiana Department of Natural Resources, Division of Water
         Publication Date: 200104
         Title: Ground Water Atlas of Hendricks County, Indiana
         Publication Information:
          Publication Place: Indianapolis, IN
          Publisher: Indiana Department of Natural Resources
         Online Linkage:
    Source Scale Denominator: 24000
    Type of Source Media: mylar
    Source Time Period of Content:
     Time Period Information:
      Range of Dates/Times:
        Beginning Date: 1959
        Ending Date: 1999
     Source Currentness Reference: Publication date
    Source Citation Abbreviation:
IDNR DOW WFWR Bedrock surface topography Clayton Quadrangle Indiana
    Source Contribution: water well records from the IDNR-DOW water well record archives, seismic data, oil and
gas logs, publications
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Lineage:

Source_Information: Source_Citation:

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Citation Information:
       Originator: Mary Thompson, Indiana Department of Natural Resources, Division of Water
       Publication Date: work completed 1999
      Title: Unpublished work map, Clermont Quadrangle Bedrock-surface Topography. 1:24,000
      Edition: 1.0
       Geospatial Data Presentation Form: map
       Publication Information:
        Publication Place: Indianapolis, IN
        Publisher: State of Indiana, IDNR
        Other Citation Details: Data plotted by Marv Thompson: 1999
        Online Linkage:
      Larger Work Citation: Ground Water Atlas of Hendricks County, Indiana
        Citation Information:
         Originator: Indiana Department of Natural Resources, Division of Water
         Publication Date: 200104
         Title: Ground Water Atlas of Hendricks County, Indiana
         Publication Information:
           Publication Place: Indianapolis, IN
          Publisher: Indiana Department of Natural Resources
         Online Linkage:
    Source Scale Denominator: 24000
    Type of Source Media: mylar
    Source Time Period of Content:
     Time Period Information:
      Range of Dates/Times:
        Beginning Date: 1959
        Ending Date: 1999
     Source Currentness Reference: Publication date
    Source Citation Abbreviation:
IDNR DOW WFWR Bedrock surface topography Clermont Quadrangle Indiana
    Source Contribution: water well records from the IDNR-DOW water well record archives, seismic data, oil and
gas logs, publications
Lineage:
  Source Information:
    Source Citation:
     Citation Information:
       Originator: Mary Thompson, Indiana Department of Natural Resources, Division of Water
       Publication Date: work completed 1999
       Title: Unpublished work map, Coatesville Quadrangle Bedrock-surface Topography. 1:24,000
      Edition: 1.0
       Geospatial Data Presentation Form: map
       Publication Information:
        Publication Place: Indianapolis, IN
        Publisher: State of Indiana, IDNR
        Other Citation Details: Data plotted by Mary Thompson: 1999; Mary Thompson retraced the map for
        scanning.
        Online Linkage:
      Larger Work Citation: Ground Water Atlas of Hendricks County, Indiana
        Citation Information:
         Originator: Indiana Department of Natural Resources, Division of Water
         Publication Date: 200104
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Publisher: Indiana Department of Natural Resources

Publication Information:

Publication Place: Indianapolis, IN

Title: Ground Water Atlas of Hendricks County, Indiana

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Online Linkage:
    Source Scale Denominator: 24000
    Type of Source Media: mylar
    Source Time Period of Content:
     Time Period Information:
      Range of Dates/Times:
        Beginning Date: 1959
        Ending Date: 1999
     Source Currentness Reference: Publication date
    Source Citation Abbreviation:
IDNR DOW WFWR Bedrock surface topography Coatesville Quadrangle Indiana
    Source Contribution: water well records from the IDNR-DOW water well record archives, seismic data, oil and
gas logs, publications
Lineage:
  Source Information:
    Source Citation:
     Citation Information:
       Originator: Mary Thompson, Indiana Department of Natural Resources, Division of Water
       Publication Date: work completed 1997
       Title: Unpublished work map, Danville Quadrangle Bedrock-surface Topography. 1:24,000
      Edition: 1.0
       Geospatial Data Presentation Form: map
       Publication Information:
        Publication Place: Indianapolis, IN
        Publisher: State of Indiana, IDNR
        Other Citation Details: Data plotted by Marv Thompson: 1997; Marv Thompson retraced the map for
        scanning.
        Online Linkage:
      Larger Work Citation: Ground Water Atlas of Hendricks County, Indiana
        Citation Information:
         Originator: Indiana Department of Natural Resources, Division of Water
         Publication Date: 200104
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         Publication Information:
          Publication Place: Indianapolis, IN
          Publisher: Indiana Department of Natural Resources
         Online Linkage:
    Source Scale Denominator: 24000
    Type of Source Media: mylar
    Source Time Period of Content:
     Time Period Information:
      Range of Dates/Times:
        Beginning Date: 1959
        Ending Date: 1997
     Source Currentness Reference: Publication date
    Source Citation Abbreviation:
IDNR DOW WFWR Bedrock surface topography Danville Quadrangle Indiana
    Source Contribution: water well records from the IDNR-DOW water well record archives, seismic data, oil and
gas logs, publications
Lineage:
  Source Information:
    Source Citation:
     Citation Information:
       Originator: Mary Thompson and Bill Herring, Indiana Department of Natural Resources, Division of Water
```

Publication Date: work completed 19980401

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Title: Unpublished work map, Eminence Quadrangle Bedrock-surface Topography. 1:24,000
      Edition: 1.0
       Geospatial Data Presentation Form: map
       Publication Information:
        Publication Place: Indianapolis, IN
        Publisher: State of Indiana, IDNR
        Other Citation Details: Data plotted by Mary Thompson and Bill Herring: 1998
        Online Linkage:
      Larger Work Citation: Ground Water Atlas of Hendricks County, Indiana
        Citation Information:
         Originator: Indiana Department of Natural Resources, Division of Water
         Publication Date: 200104
         Title: Ground Water Atlas of Hendricks County, Indiana
         Publication Information:
          Publication Place: Indianapolis, IN
          Publisher: Indiana Department of Natural Resources
         Online Linkage:
    Source Scale Denominator: 24000
    Type of Source Media: mylar
    Source Time Period of Content:
     Time Period Information:
      Range of Dates/Times:
        Beginning Date: 1959
        Ending Date: 1998
     Source Currentness Reference: Publication date
    Source Citation Abbreviation:
IDNR DOW WFWR Bedrock surface topography Eminence Quadrangle Indiana
    Source Contribution: water well records from the IDNR-DOW water well record archives, seismic data, oil and
gas logs, publications
Lineage:
  Source Information:
    Source Citation:
     Citation Information:
       Originator: Mary Thompson, Indiana Department of Natural Resources, Division of Water
       Publication Date: work completed 1999
      Title: Unpublished work map, Fayette Quadrangle Bedrock-surface Topography. 1:24,000
      Edition: 1.0
       Geospatial Data Presentation Form: map
       Publication Information:
        Publication Place: Indianapolis, IN
        Publisher: State of Indiana, IDNR
        Other Citation Details: Data plotted by Marv Thompson: 1999; Marv Thompson retraced the map for
        scanning.
        Online Linkage:
      Larger Work Citation: Ground Water Atlas of Hendricks County, Indiana
        Citation Information:
         Originator: Indiana Department of Natural Resources, Division of Water
         Publication Date: 200104
         Title: Ground Water Atlas of Hendricks County, Indiana
         Publication Information:
          Publication Place: Indianapolis, IN
           Publisher: Indiana Department of Natural Resources
         Online Linkage:
    Source Scale Denominator: 24000
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Type of Source Media: mylar

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Source Time Period of Content:
     Time Period Information:
      Range of Dates/Times:
        Beginning Date: 1959
        Ending Date: 1999
     Source Currentness Reference: Publication date
    Source Citation Abbreviation:
IDNR DOW WFWR Bedrock surface topography_Fayette_Quadrangle_Indiana
    Source Contribution: water well records from the IDNR-DOW water well record archives, seismic data, oil and
gas logs, publications
Lineage:
  Source Information:
    Source Citation:
     Citation Information:
       Originator: Bill Herring and Mary Thompson, Indiana Department of Natural Resources, Division of Water
       Publication Date: work completed 19980824
       Title: Unpublished work map, Hall Quadrangle Bedrock-surface Topography. 1:24,000
      Edition: 1.0
       Geospatial Data Presentation Form: map
       Publication Information:
        Publication Place: Indianapolis, IN
        Publisher: State of Indiana, IDNR
         Other Citation Details: Data plotted by Bill Herring and Mary Thompson: 1998
                                                                                           Online Linkage:
      Larger Work Citation: Bedrock-surface topography of the West Fork White River basin
        Citation Information:
         Originator: Indiana Department of Natural Resources, Division of Water
         Publication Date: 200104
         Title: Water Resources in the White and West Fork White River Basins
         Publication Information:
           Publication Place: Indianapolis, IN
           Publisher: Indiana Department of Natural Resources
         Online Linkage:
    Source Scale Denominator: 24000
    Type of Source Media: mylar
    Source Time Period of Content:
     Time Period Information:
      Range of Dates/Times:
        Beginning Date: 1959
        Ending Date: 1998
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    Source Citation Abbreviation: IDNR DOW WFWR Bedrock surface topography Hall Quadrangle Indiana
    Source Contribution: water well records from the IDNR-DOW water well record archives, seismic data, oil and
gas logs, publications
Lineage:
  Source Information:
    Source Citation:
     Citation Information:
       Originator: Mary Thompson, Indiana Department of Natural Resources, Division of Water
       Publication Date: work completed 1999
       Title: Unpublished work map, Lizton Quadrangle Bedrock-surface Topography. 1:24,000
      Edition: 1.0
       Geospatial Data Presentation Form: map
       Publication Information:
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Publication Place: Indianapolis, IN

Publisher: State of Indiana, IDNR Other Citation Details: Data plotted by Mary Thompson: 1999; Mary Thompson retraced the map for scanning. Online Linkage: Larger Work Citation: Ground Water Atlas of Hendricks County, Indiana Citation Information: Originator: Indiana Department of Natural Resources, Division of Water Publication Date: 200104 Title: Ground Water Atlas of Hendricks County, Indiana Publication Information: Publication Place: Indianapolis, IN Publisher: Indiana Department of Natural Resources Online Linkage: Source Scale Denominator: 24000 Type of Source Media: mylar Source Time Period of Content: Time Period Information: Range of Dates/Times: Beginning Date: 1959 Ending Date: 1999 Source Currentness Reference: Publication date Source Citation Abbreviation: IDNR DOW WFWR Bedrock surface topography Lizton Quadrangle Indiana Source Contribution: water well records from the IDNR-DOW water well record archives, seismic data, oil and gas logs, publications Lineage: Source Information: Source Citation: Citation Information: Originator: Mary Thompson and Bill Herring, Indiana Department of Natural Resources, Division of Water Publication Date: work completed 19990615 Title: Unpublished work map, Mooresville West Quadrangle Bedrock-surface Topography. 1:24,000 Edition: 1.0 Geospatial Data Presentation Form: map Publication Information: Publication Place: Indianapolis, IN Publisher: State of Indiana, IDNR Other Citation Details: Data plotted by Mary Thompson and Bill Herring: 1999 Online Linkage: Larger Work Citation: Ground Water Atlas of Hendricks County, Indiana Citation Information: Originator: Indiana Department of Natural Resources, Division of Water Publication Date: 200104 Title: Ground Water Atlas of Hendricks County, Indiana Publication Information: Publication Place: Indianapolis, IN Publisher: Indiana Department of Natural Resources Online Linkage: Source Scale Denominator: 24000 Type of Source Media: mylar Source Time Period of Content: Time Period Information: Range of Dates/Times: Beginning Date: 1959 Ending Date: 1999

Source Currentness Reference: Publication date

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Source Citation Abbreviation: IDNR DOW WFWR Bedrock surface topography Mooresville
West Quadrangle Indiana
    Source Contribution: water well records from the IDNR-DOW water well record archives, seismic data, oil and
gas logs, publications
Lineage:
  Source Information:
    Source Citation:
     Citation Information:
       Originator: Mary Thompson, Indiana Department of Natural Resources, Division of Water
       Publication Date: work completed 1999
       Title: Unpublished work map, New Ross Quadrangle Bedrock-surface Topography. 1:24,000
      Edition: 1.0
       Geospatial Data Presentation Form: map
       Publication Information:
        Publication Place: Indianapolis, IN
        Publisher: State of Indiana, IDNR
        Other Citation Details: Data plotted by Mary Thompson: 1999; Mary Thompson retraced the map for
        scanning.
        Online Linkage:
      Larger Work Citation: Ground Water Atlas of Hendricks County, Indiana
        Citation Information:
         Originator: Indiana Department of Natural Resources, Division of Water
         Publication Date: 200104
         Title: Ground Water Atlas of Hendricks County, Indiana
         Publication Information:
          Publication Place: Indianapolis, IN
          Publisher: Indiana Department of Natural Resources
         Online Linkage:
    Source Scale Denominator: 24000
    Type of Source Media: mylar
    Source Time Period of Content:
     Time Period Information:
      Range of Dates/Times:
        Beginning Date: 1959
        Ending Date: 1999
     Source Currentness Reference: Publication date
    Source_Citation_Abbreviation: IDNR_DOW_WFWR_Bedrock_surface_topography_New
Ross Quadrangle Indiana
    Source Contribution: water well records from the IDNR-DOW water well record archives, seismic data, oil and
gas logs, publications
Lineage:
  Source Information:
    Source Citation:
     Citation Information:
       Originator: Mary Thompson, Indiana Department of Natural Resources, Division of Water
       Publication Date: work completed 1999
       Title: Unpublished work map, North Salem Quadrangle Bedrock-surface Topography. 1:24,000
      Edition: 1.0
       Geospatial Data Presentation Form: map
       Publication Information:
        Publication Place: Indianapolis, IN
        Publisher: State of Indiana, IDNR
        Other Citation Details: Data plotted by Marv Thompson: 1999; Marv Thompson retraced the map for
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scanning.

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Online Linkage:
      Larger Work Citation: Ground Water Atlas of Hendricks County, Indiana
        Citation Information:
         Originator: Indiana Department of Natural Resources, Division of Water
         Publication Date: 200104
         Title: Ground Water Atlas of Hendricks County, Indiana
         Publication Information:
          Publication Place: Indianapolis, IN
           Publisher: Indiana Department of Natural Resources
         Online Linkage:
    Source Scale Denominator: 24000
    Type of Source Media: mylar
    Source Time Period of Content:
     Time Period Information:
      Range of Dates/Times:
        Beginning Date: 1959
        Ending Date: 1999
     Source Currentness Reference: Publication date
    Source Citation Abbreviation: IDNR DOW WFWR Bedrock_surface_topography_North
Salem Quadrangle Indiana
    Source Contribution: water well records from the IDNR-DOW water well record archives, seismic data, oil and
gas logs, publications
Lineage:
  Source Information:
    Source Citation:
     Citation Information:
       Originator: Mary Thompson, Indiana Department of Natural Resources, Division of Water
       Publication Date: work completed 1999
       Title: Unpublished work map, Plainfield Quadrangle Bedrock-surface Topography. 1:24,000
      Edition: 1.0
       Geospatial Data Presentation_Form: map
       Publication Information:
        Publication Place: Indianapolis, IN
        Publisher: State of Indiana, IDNR
        Other Citation Details: Data plotted by Mary Thompson: 1999; Mary Thompson retraced the map for
        scanning.
        Online Linkage:
      Larger Work Citation: Ground Water Atlas of Hendricks County, Indiana
        Citation Information:
         Originator: Indiana Department of Natural Resources, Division of Water
         Publication Date: 200104
         Title: Ground Water Atlas of Hendricks County, Indiana
         Publication Information:
          Publication Place: Indianapolis, IN
           Publisher: Indiana Department of Natural Resources
         Online Linkage:
    Source Scale Denominator: 24000
    Type of Source Media: mylar
    Source Time Period of Content:
     Time Period Information:
      Range of Dates/Times:
        Beginning Date: 1959
        Ending Date: 1999
```

Source Currentness Reference: Publication date

```
Source Citation Abbreviation:
IDNR DOW WFWR Bedrock surface topography Plainfield Quadrangle Indiana
    Source Contribution: water well records from the IDNR-DOW water well record archives, seismic data, oil and
gas logs, publications
Lineage:
  Source Information:
    Source Citation:
     Citation Information:
       Originator: Mary Thompson, Indiana Department of Natural Resources, Division of Water
       Publication Date: work completed 1999
       Title: Unpublished work map, Zionsville Quadrangle Bedrock-surface Topography. 1:24,000
      Edition: 1.0
       Geospatial Data Presentation Form: map
       Publication Information:
        Publication Place: Indianapolis, IN
        Publisher: State of Indiana, IDNR
        Other Citation Details: Data plotted by Mary Thompson: 1999
        Online Linkage:
      Larger Work Citation: Ground Water Atlas of Hendricks County, Indiana
        Citation Information:
         Originator: Indiana Department of Natural Resources, Division of Water
         Publication Date: 200104
         Title: Ground Water Atlas of Hendricks County, Indiana
         Publication Information:
          Publication Place: Indianapolis, IN
          Publisher: Indiana Department of Natural Resources
         Online Linkage:
    Source Scale Denominator: 24000
    Type of Source Media: mylar
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        Beginning Date: 1959
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IDNR DOW WFWR Bedrock surface topography Zionsville Quadrangle Indiana
    Source Contribution: water well records from the IDNR-DOW water well record archives, seismic data, oil and
gas logs, publications
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SPATIAL DATA ORGANIZATION INFORMATION
 Direct Spatial_Reference_Method: Vector
 Point and Vector Object Information:
  SDTS Terms Description:
```

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Point and Vector Object Count: 1

SDTS Point and Vector Object Type: GT-polygon composed of chains

```
Horizontal Coordinate System Definition:
  Planar:
    Grid Coordinate System:
     Grid Coordinate System Name: Universal Transverse Mercator
     Universal Transverse Mercator:
       UTM Zone Number: 16
       Transverse Mercator:
        Scale Factor at Central Meridian: 0.999600
        Longitude of Central Meridian: -87.000000
       Latitude of Projection Origin: 0.000000
        False Easting: 500000.000000
        False Northing: 0.000000
    Planar Coordinate Information:
     Planar Coordinate Encoding Method: Coordinate pair
     Coordinate Representation:
      Abscissa Resolution:
      Ordinate Resolution:
     Planar Distance Units: Meters
  Geodetic Model:
    Horizontal Datum Name: North American Datum of 1927
    Ellipsoid Name: Clarke 1866
    Semi-major Axis: 6378206.4000000
    Denominator of Flattening Ratio: 294.98
ENTITY AND ATTRIBUTE INFORMATION
 Overview Description:
  Entity and Attribute Overview: The points in this file represent calculations of bedrock-surface topography
determined at or around water wells. The file was created for the purpose of characterizing the bedrock surface as a
part of the Ground Water Atlas of Hendricks County, Indiana.
  Entity and Attribute Detail Citation:
    Detailed Description:
     Entity Type:
        Entity Type Label: Hendricks bedrock.aat
        Entity Type Definition: arc attribute table
        Entity Type Definition Source: None
    Attribute:
        Attribute Label: elevation
        Attribute Definition: the elevation of the bedrock surface in feet above mean sea level
        Attribute Definition Source: IDNR-DOW, Ground Water Section
```

Attribute Domain Values: Range Domain: Range Domain Minimum: 575 Range Domain Maximum: 925 Attribute Units of Measure: integer Attribute Measurement Resolution: 25 foot contours. Attribute Value Accuracy Information: Attribute Value Accuracy: Attribute Value Accuracy Explanation: Attribute: Attribute Label: Mod Attribute Definition: Modulo of elevation value. Used to assign color or patterns to contour classes (lines). Attribute Definition Source: IDNR-DOW Ground Water Section

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Attribute_Domain_Values:
Range_Domain:
Range_Domain_Minimum: 00
Range_Domain_Maximum: 75
Attribute_Units_of_Measure: positive integers
Attribute_Measurement_Resolution:
Attribute_Value_Accuracy_Information:
Attribute_Value_Accuracy:
Attribute_Value_Accuracy Explanation:
```

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DISTRIBUTION INFORMATION

```
Distributor:
```

Contact Information:

Contact_Organization_Primary:

Contact Organization: Indiana Department of Natural Resources, Division of Water

Contact Person: Glenn Grove

Contact Position: Engineering Geologist

Contact Address:

Address_Type: Mailing and physical address Address: 402 W. Washington Street W264

City: Indianapolis

State or Province: Indiana

Postal_Code: 46204 Country: USA

Contact_Voice_Telephone: 317-232-4160 Contact Facsimile Telephone: 317-233-4579

Contact Electronic Mail Address: ggrove@dnr.state.in.us

Hours_of_Service: 8:15am - 4:15pm

Resource Description:

Distribution_Liability: The Indiana State Department of Natural Resources Division of Water has compiled this data set using data believed to be accurate; however, the Division makes no representation as to the accuracy, completeness, or usefulness of the data or data set. Reference to any specific commercial product, process, or service does not constitute an endorsement, recommendation, or favoring by the Division.

This map was compiled by staff of the Indiana State Department of Natural Resources Division of Water using data believed to be accurate. However, a degree of error is inherent in all maps. This map is intended for use only at the published scale.

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Any copying, adaptation, or distribution of these data without the express written consent of the Indiana State Department of Natural Resources Division of Water is discouraged.

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METADATA REFERENCE INFORMATION

Metadata_Date: 200104 Metadata_Review_Date: Metadata_Contact: Contact Information: Contact Organization Primary:

Contact Organization: Indiana Department of Natural Resources, Division of Water

Contact Person: Glenn Grove

Contact Position: Ground Water Section

Contact Address:

Address_Type: Mailing and physical address Address: 402 W. Washington Street W264

City: Indianapolis

State_or_Province: Indiana

Postal_Code: 46204 Country: USA

Contact_Voice_Telephone: 317-232-4160 Contact Facsimile Telephone: 317-233-4579

Contact Electronic Mail Address: ggrove@dnr.state.in.us

Hours_of_Service: 8:15am - 4:15pm Metadata_Standard_Name: FGDC CSDGM

Metadata Standard Version: FGDC-STD-001-1998

Metadata Use Constraints: This metadata file is intended to accompany the subject geospatial data set. This file may be updated, and the most recent version is available by contacting the IDNR Division of Water.

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